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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,108

09/30/2003

Soumyadeb Ghosh

126344-1

4989

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06/06/2006

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EXAMINER

SANDERS, KRIELLION ANTIONETTE

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/675,108

**Applicant(s)**

GHOSH ET AL.

**Examiner**

Kriellion A. Sanders

**Art Unit**

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 17-23 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

Applicant indicated that the prior art submitted in the IDS has not been considered by the examiner. However, the art submitted in the IDS statements filed 4/04, 1/05 and 8/05 have all been considered. Any prior art not initialed has been considered, but requires both a month and year of publication for printing purposes and so has not been initialed.

### ***Election/Restrictions***

1. This application contains claims 17-23 and 25 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ameraseka et al, US 2002/0183438 taken with Elkovitch et al US 2005/0070657 and Nahass et al, US Patent No. 5,591,382.

1. Ameraseka et al, US 2002/0183438 discloses conductive polymeric composition comprising

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Either of a Thermoplastic and/or thermoset resin and

An electrically conductive filler system further comprising:

small carbon fibers and

carbon powder and/or non-conductive filler

The small carbon fibers may be carbon nanotubes having a diameter of 2000 nanometers or may be graphitized carbon fibers. The carbon nanotubes would correspond to the nanosized conductive filler of applicant's claims. The carbon fibers have aspect ratios greater than or equal to 5. The small carbon fibers may be used with conductive carbon black powder. The carbon black is used in an amount that is greater than 0.25% of the total composition. See paragraphs 0015 and 0019. Since the small carbon fibers of Ameraseka et al may be graphitized or may be carbon nanotubes, the reference does not really distinguish between the two components. Therefore applicant's use of both nanosized conductive fillers and graphite would expectedly yield an additive effect since a nanosized conductive filler may actually be graphite.

This is further documented by Elkovitch et al, US 2005/0070657, which teaches that nanosized conductive fillers may be carbon fibers, carbon black and graphite. See paragraph 0098. Elkovitch teaches compositions of thermoplastic and/or thermoset polymers, a single wall nanotube composition and a nanosized conductive filler, such as graphite. Applicant's nanosized conductive fillers may be single wall carbon nanotubes as set forth in present claim 11. Elkovitch et al therefore teaches these components of applicant's claims. Patentee further discloses a poly(arylene ether) composition having an intrinsic viscosity of about 0.10 to about 0.60 deciliters per gram (dl/g), as measured in chloroform at 25.degree. C. This may or may not overlap with the viscosity requirements

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of applicant's claim 16, since conversions formats are not readily available. However, it does relate a need to synthesize the compositions within certain parameters. Such parameters are considered to be obvious to the ordinary practitioner. Also see paragraphs 0010, 0013, 0087 and claim 1.

It is common to form carbon fibers from polyacrylonitrile or pitch. Nothing unobvious is seen in using fibers derived from these components. See Nahass et al at col. 1, lines 28-35.

### ***Response to Arguments***

3. Applicant's arguments filed 3/15/06 have been fully considered but they are not persuasive.

4. Applicant is advised that his currently claimed limitations to graphite diameter ranging from 1 to 5, 000 micrometers is equivalent to 999.99 to 5,000,000 nanometers. Since Amereseckara et al discloses that the graphite VGCF may range in diameter of 2000, patentee does suggest applicant's claimed limitation to the graphite particle diameter.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164

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USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-16 and 24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of U.S. Publication No.

2005/0070657. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's nanosized conductive filler correlates to the single wall nanotube of Elkovitch et al. Applicant's graphite corresponds to the nanosized conductive filler of Elkovitch et al. Therefore, the components of both inventions are the same.

7. Claims 1-16 and 24 are directed to the same invention as that of claims 1-40 of commonly assigned Patent Publication No, 2005/0070657. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kriellion A. Sanders  
Primary Examiner  
Art Unit 1714

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